Persistent Deprivation in the European Union

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Abstract

In recent years, the use of direct measures of deprivation alongside current income has shown that the latter provide a rather imperfect measure of permanent income or command over resources. Research has shown though that the relationship between income and deprivation increases if panel measures of income are used to highlight persistent income poverty. In this paper we confirm this relationship before moving on to the analysis of panel measures of deprivation and the relationship between persistent income and persistent deprivation poverty measures. Our analysis shows that that while there is a clear and systematic relationship between persistent poverty and persistent deprivation, the degree of overlap is far from perfect. Over and above the impact of persistent income poverty, a variety of resource related variables such as education, labour market experience and social class, and need related variables such as marital status and household structure, allow a significant degree of predictability in relation to the risk of exposure to deprivation. Furthermore, the impact of persistent deprivation on the experience of extreme economic strain is only partially mediated by persistent income poverty. In our conclusion we stress the importance for both analytic and policy purposes of not allowing a legitimate concern with income and deprivation dynamics to obscure the extent to which life-chances continues to be structured by a set of influences that are shaped by larger socio-economic and political forces.

1. Introduction

What does it mean to be poor in the 'rich' countries of the European Union or North? Ensuring that everyone has a subsistence level of nutrition, clothing and housing provides one obvious standard. In everyday use poverty in rich countries is often seen as an inability to attain a decent standard of living. However, what is considered adequate, and what are generally perceived as needs, will change over time and differ across societies. Poverty is in this sense relative as captured in the often quoted passage from Adam Smith where he defines 'necessities' as including 'not only commodities which are indispensably necessary for the support of life, but whatever the custom of the country renders it indecent for creditable people, even the lower orders to do without'. Sen (1983) concludes that it is in the notion of 'shame' that the core of the concept of poverty is to be found: the absence of resources puts people in a situation where they cannot live with dignity in their society.

There are dissenting voices who see poverty as primarily an absolute notion. In practice standards presented as aiming to measure 'absolute' poverty in developed countries have been heavily influenced by prevailing conditions and expenditure patterns in the society in question. Their true distinguishing feature is not the way the standard is set initially, but the way it is adjusted over time in line in with prices. The budget standard method employed in the construction of the US official poverty line allows a line to be specified which can be taken to represent a fixed basket of goods and services that are believed to represent the bare necessities of life. This can then be indexed against prices, and progress against this fixed poverty line over time can be monitored. However, as Townsend (1979), among others, notes 'needs' are to a large extent being determined by the actual expenditures of those at low incomes. Budget-

standard poverty lines cannot therefore be seen as representing requirements that are in any sense ‘absolute’. They can serve as the basis for a line which is then held fixed over time. However, there seems to be no reason why such a fixed standard should necessarily be based on the budget standard method. Much of the debate about absolute versus relative poverty measures hinges not on whether poverty should be assessed on the basis of a set of requirements absolutely necessary for subsistence, but rather on whether the poverty line should be held fixed in real terms over time or rise as the general standard of living in the society rises. O’ Boyle (1999:282) suggests using the less ambiguous terms “minimal-living standard” in place of “absolute” standard and “income-distribution standard instead of relative standard”.

The view that poverty has to be seen in terms of the standard of living of the society in question at a particular point in time led in the European Union to poverty lines being framed explicitly, and purely, in terms of relative income. Customarily, this involved setting the poverty line at a particular percentage of mean or median income. The general rationale is that those falling more than a certain ‘distance’ below the average or normal income level in the society are unlikely to participate fully in the life of the community. The OECD and the EU Commission or Eurostat have adopted the relative income line approach in a number of studies. Thus the Second Poverty Programme, which ran from 1985 to 1989, took as a starting point the following definition of poverty:

‘The poor shall be taken to mean persons, families and groups of persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live.'

In contrast with the US approach any improvement in living standards of low-income groups which are shared by the rest of the population are discounted. Likewise, a general decline in prosperity, even if it leads to lot of additional people in misery, will not show up as an increase in poverty if the relative picture has not changed.

What the US poverty line and the relative poverty income line approach have in common is that, while the former defines poverty in terms of living standards and the latter in terms of exclusion from the minimum acceptable way of life, both use income in assessing whether a households falls below the poverty line. Both measures are indirect rather direct measures of the underlying concepts. Thus, as O'Boyle (1999:285) notes, the US official standard measures directly the cost of only one aspect of human physical need with the cost of other aspects of that need being estimated indirectly by means of the multiplier. In the European Union the falling below a relative income line is an indirect measure of exclusion from a minimum acceptable standard of living. The problem that must be confronted though is that, as Ringen (1987, 1988) argued, low income turns out to be a quite unreliable indicator of poverty in this sense, because it fails to identify households experiencing distinctive levels of deprivation. Various studies of different industrialised countries have indeed found a substantial proportion of those on low incomes not to be suffering from deprivation while some households above income poverty lines do experience such deprivation. These include Townsend (1979), Mack and Lansley (1985) and Gordon *et al* (1996) with British data, Mayer & Jencks (1988) for the USA, Callan, Nolan, & Whelan (1993) and Nolan and Whelan (1996 [a&b]) with Irish data, (Muffels 1993) with Dutch data, and Hallerod (1996) for Sweden. Even where a variety of deprivation dimensions are distinguished and one focuses on those which might be expected to

relate most closely to current income, major discrepancies between income and deprivation are still found (Muffels 1993, Nolan & Whelan 1996[a&b]).

Apart from measurement error (both for income and deprivation), there are several explanations for this loose relationship. The impact of low income on living standards depends on the length of time low income persists, and the availability of other resources (such as savings or help from family and friends) to supplement current income. Furthermore, one would expect current life-style and deprivation to be influenced by many factors other than current income. A range of social and economic processes will influence levels of deprivation, and households at similar levels of current income will have arrived at that position from a variety of different trajectories. Concern with the scale of the transitory component of income led Jorgenson (1998) to propose that one measure poverty in terms of consumption expenditure rather than income because the transitory component of consumption is a great deal smaller. In conceptual terms, as Nolan and Whelan (1996:13) note, comparing expenditure rather than income with the aggregate meeting minimum needs actually represents something of a halfway house between a standard of living and a resources focus. It allows one to see whether total consumption suffices to reach the minimum specified standards, irrespective of how that is financed, but reaching that consumption level does not necessarily mean that expenditure has been allocated in such a way as to reach the specified minima for the various elements in the basket.

Furthermore, as O'Boyle (1999: 288) notes, whether consumption is a better proxy for household resources than measured income for the purposes of measuring poverty depends on whom one wishes to include in a head count of the poor. In particular one

loses the possibility of distinguishing between the transitional poor and those persistently poor. Thus each option involves conceptual choices. It is precisely the distinction between the temporarily and persistently poor which underlies our analysis in this paper. It is well known that cross-sectional analyses do not give a representative picture of the lives of all those who ever experience a poverty spell. Those observed at particular point in time will display significantly longer spells of poverty than those ever in poverty. Bane and Ellwood (1986) make the distinction between an *ever begun* sample and a *point in time* sample. Analysis of poverty spells and the experiences of individuals involves different, but complementary perspectives. Thus as Rodgers & Rodgers (1993) note, spell analysis regards chronic poverty as a state in which one falls below a predefined threshold during a long and continuous period of time. However, as they argue, chronic poverty could equally be conceptualised as the experience of poverty in a large proportion of time periods. Furthermore, while spell analysis has the potential to provide us with distinctive insights into the poverty process, analysis of individuals provides an important complement. Thus as Rodgers & Rodgers (1993:1558) note, a conclusion that x% of poverty spells end within one year could mean that x% of poor people had one brief poverty spell or that a much smaller number of poor individuals had many short spells. Furthermore, as Ashworth *et al* (2000:210) observe, replacing the individual or the household as the unit of analysis makes it possible to lose sight of the characteristics of the poor and the severity of poverty.

In the analysis we present we will take advantage of the recent availability of the comparative data in the European Community Household Panel (ECHP) to focus on persistent income poverty over the three-year period 1993-1995. In recent work by

Eurostat the possibility of using such a measure as a complement to, or an alternative for the conventional relative income poverty lines has received increasing attention. In this paper we begin our analysis by considering the extent to which such a focus allow us to transcend the difficulties which have been identified with cross-sectional measures. However, we shall argue that an assessment of the relative value of these approaches requires that more systematic attention be paid to the measurement of life-style deprivation. Furthermore, we shall develop the case that while analysis of persistent income poverty involves a significant advance, the failure to address the extent to which deprivation is persistent or transitory constitutes a significant limitation. We will also seek to show that extending our analysis in this fashion leads to a consideration of the causes of poverty and deprivation which leads to a greater emphasis on variables that constitute the concern of mainstream stratification research than is normally the case in poverty research.

In the analysis that follows we will:

1. Outline the conceptual background underlying our measurement of deprivation.
2. Illustrate the problem of relatively poor fit between cross-sectional income poverty and deprivation.
3. Examine the extent of persistent income poverty.
4. Show how taking persistence of income poverty into account improves our ability to identify the currently deprived.
5. Establish the extent to which deprivation persists over time.
6. Examine the relationship between persistent poverty and persistent deprivation.

7. Examine the impact of resource and need factors on persistent deprivation after allowing for the impact of deprivation.
8. Look at the relative role of persistent income poverty and persistent deprivation in accounting for the manner in which people experience economic strain.

2. Data

The results presented in this paper are based on the User Data Base (UDB) containing data from Waves 1, 2 and 3 of the ECHP as released for public use by Eurostat. The unit of analysis is the individual and we work with the sub-sample present in each of the waves.[1] Since our analysis relates to eleven countries, this gives an overall sample of 131,335.[2] The income measure employed is total disposable income, including transfers and after deduction of income tax and social security contributions, with the household taken as the income recipient unit. The principal accounting period for income employed in the ECHP is the previous calendar year: with the Wave 1 survey carried out in 1994, the Wave 2 in 1995 and the Wave 3 in 1996 this means the income measures relate to calendar years 1993, 1994 and 1995 respectively.[3]

Since a given level of household income will support a different standard of living depending on the size and composition of the household, we adjust for these differences using equivalence scales. The scale we employ is the "modified OECD" scale: where the first adult in a household is given the value 1, with this scale each additional adult is given a value of 0.5 and each child a value of 0.3. We thus calculate the number of equivalent adults in each household using this scale, and construct equivalised income by dividing household income by this number. Equivalised income of the household is then attributed to each member, assuming a common living standard within the household,

and our analysis is carried out using the individual as the unit of analysis. Assessing the extent of income poverty persistence involves comparing annual equivalised income reported in 1993, 1994 and 1995. Our analysis is thus restricted to individuals residing in households that were present in all three waves.

For the purposes of the analysis in this paper, we identified thirteen household items, which could serve as indicators of the concept of life-style deprivation as outlined above.[4] These items are considered to cover a range of what we term Current Life-Style Deprivation (CLSD). A further eleven items, relating to housing and the environment, which in principle meet our definition of deprivation, have been excluded because they have been shown to form quite distinct clusters to the CLSD measure and to have significantly weaker correlations with income (Whelan *et al*, forthcoming). Thus the exclusion of these items will minimise the extent of income-deprivation mismatch found in the ECHP data. The format of the items varied, but in each case we seek to use measures which can be taken to represent enforced absence of widely desired items. Full details of the construction of the scale are provided in an Appendix.

For our present purposes we use a weighted version of this measure in which each individual item is weighted by the proportion of households possessing that item in each country. As a consequence deprivation of an item such as a video recorder will be counted as a more substantial deprivation in Denmark as compared to Greece. In this form the measure is clearly unsuitable for the purposes of comparison across countries.[5] However, the weighted CLSD measure makes it possible to identify for each country, and for each income poverty line, a corresponding deprivation

threshold. This allows, in principle, for the mismatch between poverty defined in income terms and deprivation terms to vary from zero to one hundred per cent.

3. Income Poverty and Relative Deprivation

In Table 1 we show the degree of consistency between being below 50%, 60% and 70% of median income in 1995 and being above the corresponding deprivation threshold. The latter is defined as the point on the CLSD measure above which an identical percentage of individuals are found located below the relevant income line. Thus, as we noted earlier, for each comparison the potential degree of consistency runs between zero and one hundred per cent. In practice, as we can see from Table 1, the degree of consistency is far from being perfect and deteriorates the more stringently we define income poverty. For all three lines Denmark is an outlier and displays low levels of consistency. For the remaining countries the extent of overlap at 50% of median income ranges from a low of 18% in Denmark to a high of 40% in Portugal.

Table 1*: Percentage Of Persons Above Corresponding Deprivation Threshold in 1996 by Median Income Line Poverty in 1995*

	50% Median Income	*60% Median Income*	*70% Median Income*
Germany	26.9	36.5	44.8
Denmark	12.5	19.5	32.1
Netherlands	24.6	38.4	49.5
Belgium	27.7	39.2	48.1
France	35.8	40.4	53.5
UK	31.8	43.9	54.3
Ireland	17.9	43.9	56.3
Italy	33.2	40.6	50.1
Greece	39.1	44.7	55.4
Spain	32.6	42.3	46.9
Portugal	40.4	46.7	53.5

At the 60% line the level of agreement runs from 37% in Germany to 47% in Portugal. Finally at the 70% line there is a further rise in consistency with the figure running from a low of 45% in Germany to a high of 56% in Ireland. Thus the level of consistency is dependent on the point at which the poverty line is pitched and at best reaches approximately one in two. Even this degree of consistency is therefore bought at the price of relatively high poverty rates. Attempting to narrow our focus to those in the lower income ranges undermines the rationale of relative income lines in terms of the identification of those excluded from the minimum acceptable way of life.

To what extent does shifting our focus from cross-sectional income poverty to persistent poverty over time provide some resolution of these difficulties? In Table 2 we explore this issue by examining variation among those below the 70% median income line in 1995 in the extent to which they are found above the corresponding deprivation threshold in 1996 by the frequency with which they are below the 70% income line between 1993-95. As we can see, with the exception of Denmark and to a lesser extent Germany, consistency increases with exposure to income poverty. Thus, leaving Denmark aside for the moment, we find that among those poor in only one year the rate of agreement ranges from 27% in Spain to 40% in Germany. For those poor in two out of the three years the range runs from 39% in Spain to 54% in the UK. Finally, for the persistently poor group the figure runs from 46% in Germany to 67% in Ireland. Thus, by taking a dynamic perspective on income poverty our ability to predict deprivation at the 70% threshold is significantly improved. The persistent poverty measure conforms to our expectations of how a poverty measure should behave in that the level of deprivation rises systematically as the degree of exposure to poverty increases.

Table 2: Percentage of individuals below the 70% median income line found above the corresponding deprivation threshold in 1996 by number of years income poor 1993-95

	1	*2*	*3*
Germany	39.7	46.7	46.1
Denmark	34.8	30.0	31.2
Netherlands	35.9	46.3	57.8
Belgium	34.4	41.6	54.5
France	37.8	53.6	59.6
U. K.	32.1	53.8	62.7
Ireland	35.4	47.4	67.1
Italy	33.2	44.9	56.7
Spain	27.3	38.8	57.5
Greece	34.5	47.0	66.0
Portugal	31.7	49.2	59.9

This in contrast to the pattern observed for cross-sectional income poverty measures as one moves from more to less generously defined income lines.

By adopting a dynamic rather than a static perspective on income poverty we can make considerable progress in resolving some of the difficulties arising from the relatively weak association between income and deprivation at a cross-sectional level. However, up to this point, and in line with most of the existing literature in the field, we have assumed that the issue of persistence arises solely in relation to income poverty. At this point we wish to broaden our perspective and extend the dynamic perspective to deprivation. Are those individuals who are found above a deprivation threshold more or less likely to remain in this position over a period of time than those falling below the corresponding income threshold? What is the extent of overlap between those persistently income poor and those exposed to persistent life-style deprivation.

In Table 3 we begin to address these questions. In column one we show the percentage of individuals below 70% of median income in 1993. This ranges from 15% in Denmark to 30% in Portugal but with ten of the eleven countries being found

within a ten-point range. The second column shows the degree of poverty persistence over the three-year period 1993-95. The risk of remaining poor in all three years given that one was below the income threshold in 1993 runs from 42% percent in Denmark to 64% in Portugal. Thus while poverty persistence is substantially higher than one would expect on the basis of the null hypothesis - that the risk of poverty in any one year is independent of that in any other year, somewhere between 40% to 60% of those poor in 1993 are not poor in both of the remaining two years.

Table 3: The Extent of Persistent Income Poverty and Persistent Deprivation

	% Below 70% median income in 1993	*% Of those below 70% median income in 1993 below line in 94&95*	*Total % Below 70% Median Income in 1993&94&95*	*%Of those above deprivation threshold in 1994 above line in 95&96*	*Total % above deprivation threshold 1994&95&96*
Germany	21.6	53.4	11.5	49.3	10.7
Denmark	14.9	42.3	6.3	41.5	6.3
Netherlands	19.5	46.5	9.1	60.5	11.9
Belgium	26.1	52.7	13.8	50.6	14.0
France	22.5	55.1	12.4	54.6	12.5
U. K.	28.0	53.7	15.0	59.2	16.8
Ireland	26.5	59.5	15.8	58.0	15.5
Italy	26.2	53.8	14.1	43.9	11.5
Spain	27.7	49.7	13.8	41.5	12.0
Greece	27.1	56.5	15.3	43.1	11.8
Portugal	29.7	63.9	19.0	62.5	18.5

The consequences of these persistence rates for the total number of individuals who are found below the poverty line in all three years is shown in column three of Table 3. The total number persistently income poor at the 70% line ranges from a low of 6% in Denmark to a high of 19% in Portugal. However, eight of the eleven countries are found in the range 12% to 15%. When we turn our attention to deprivation we should note that by definition the percentage above the corresponding deprivation threshold is identical in each case to the figure reported for income poverty in 1993, other than differences arising from rounding. Column four in Table 3 shows the risk of

remaining above the threshold between 1995 and 1996 given that one is above it in 1994. The persistence rate ranges from 42% in Denmark to 63% in Portugal. Despite what we think would be the predominant expectation, there is no evidence that extreme deprivation is more persistent than income poverty. Only in the Netherlands and the UK is the percentage above the deprivation threshold in all three years higher than the corresponding figure for income persistence. In Greece, Italy, Spain and Germany the figure for the latter is higher and in the remaining countries there is very little difference. Finally, in column five we show the total number found above the deprivation threshold in all three years. This runs from a low of 6% in Denmark to a high of 19% in Portugal. However, nine of the eleven countries are found in the range 11% to 17%.

4. Income Poverty Persistence and Deprivation Persistence

Given that the tendency towards deprivation persistence is no stronger than that for income persistence, it is of particular interest to consider the relationship between both types of persistence. We start this process in Table 4. Here we look at the probability of being above the deprivation threshold corresponding to 70% of median income throughout the period running from 1994-96 by degree of exposure to income poverty between 1993 and 1995. With the exception of Denmark, there is in every case a clear and substantial relationship. In the Danish case the major contrast is between those individuals who entirely succeed in avoiding poverty and all others. For the former the persistent deprivation rate is 4% whereas for the latter it is approximately three times higher. In the following discussion of Table 4 we leave Denmark on one side. Among those not experiencing income poverty in any of the three years the percentage exposed to persistent deprivation is extremely low, ranging from 3% in Spain to 7% in Portugal.

Table 4: Percentage Persistently Deprived 1994-96 at 70% threshold by Persistent Income Poverty 1993-95 at 70% of Median Income

	Number of Times Income Poor			
	0	1	2	3
Germany	5.0	14.1	23.7	28.4
Denmark	3.7	13.3	11.5	12.8
Netherlands	4.6	15.6	27.5	46.1
Belgium	5.9	16.0	26.5	39.4
France	4.2	13.6	30.0	40.9
U. K.	5.2	18.8	38.5	45.9
Ireland	4.4	15.8	33.0	45.0
Italy	4.5	12.3	21.2	35.3
Spain	3.4	12.9	20.2	41.2
Greece	3.8	11.0	21.7	36.5
Portugal	6.6	19.8	33.9	45.2

For those below the income threshold in one of the three years the figure runs from 11% in Greece to 20% in Portugal. For those poor in two out of three years the lowest value of 20% is observed in Spain and the highest of 39% in the UK. Finally, for those persistently exposed to income poverty between 1993-95 the number above the deprivation threshold between 1994 and 1996 ranges from 28% in Germany to 46% in the UK and the Netherlands.

The risk of persistent deprivation thus rises systematically with an exposure to income deprivation. However, as the results in the final column of Table 4 show, the overlap between both types of persistence is far from perfect - for nine of our eleven countries the degree of consistency ranges between just over one third and just less than one half. For the remaining two countries it is somewhat lower. Reconsidering our findings so far we find that:

- The degree of overlap between being below an income poverty line and being above a corresponding deprivation threshold is modest for the lower income lines but increases significantly as we move to more generously defined lines.

- Taking into account income poverty persistence significantly enhances our ability to identify those who are above a specified deprivation threshold at a point in time. Thus the poverty measure conforms a great deal more closely to our expectations of how a poverty measure should behave than is the case for cross-sectional relative income lines.
- Previously, attention in the literature has focused almost entirely on income persistence rather than life-style deprivation persistence. However, we can find no evidence that the former tendency is stronger than the latter.
- Furthermore, the degree of overlap between both types of persistence is far from being perfect.

This last finding raises the question of what factors other than persistent income poverty are predictive of persistent deprivation and it is to this issue that we turn our attention in the section that follows.

5. A Multivariate Analysis of Persistent Deprivation

Our earlier analyses suggests that, in attempting to understand the determinants of persistent deprivation it is necessary for us to take into account a range of factors other than persistent poverty. In what follows we examine the effects of two broad groups of factors. The first relates to what we will term ‘needs’ and refers to the material obligations imposed on households by household structure, marital status, number of children, stage of the life cycle and key life events. In other words we seek to tap characteristics that increase the level of resources necessary for a household to maintain any given standard of living. The second set are those factors which impact on the level of resources that a household can generate through participation in the labour market which we will label ‘resource’ factors. Factors such as social class, educational qualifications and labour market experience are just three of the main

indicators of one’s ability to command remuneration in the labour market, the main form of which is current income, the most general form of resource. We appreciate that the distinction between needs and resources involved here is a rather crude one. In particular we acknowledge that some of the household characteristics we include under the heading of ‘needs’ also effect one’s ability to generate resources in the market and that what is crucial is frequently a conflict between household/family responsibilities and ability to participate in the market.

As we are predicting poverty and deprivation at the household level, the characteristics of the household reference person are used alongside variables that express household structure. The household reference person is the person responsible for the accommodation, or if this involves more than one person, the oldest person with responsibility. Exploratory analysis led us to identify the following set of factors as crucial in the case of persistent deprivation. In each case the respondents' position is defined in terms of their status in 1994.

Highest Education

Educational level is likely to have a large impact on available resources, but measuring this across countries in a consistent and valid manner is difficult. Within the ECHP, educational level is coded using the International Standard Classification of Education (ISCED) grouped into third level (ISCED 5-7), second stage of secondary education (ISCED 3-4) and all those with less than second stage of secondary level (ISCED 0-2). The two lower categories are compared with those having third level education.

Present and Recent Employment Status

Employment status is likely to be one of the best predictors of deprivation level, but knowing someone is presently employed may miss much of the variation within this group based on their past employment record. Unfortunately, the ECHP only asks respondents for their employment status at interview, whether they where unemployed in each of the months in 1993 and whether they have experienced unemployment in the last five years. Since most will have been interviewed in the second half of 1994, this means that we are not sure of their employment status between the end of 1993 and interview. Nevertheless, we make seven categories from those self-defining as employed, unemployed or inactive. The currently unemployed are divided between those who were unemployed for more than six months in 1993 and those for less than 6 months in 1993. The currently employed are divided into those who experienced unemployment in 1993, those who did not experience unemployment in 1993, but who did so in the last five years before interview and those with no unemployment experience. Lastly, we have a category for those currently defining themselves as inactive. If we list these in order of labour market disadvantage they become 'precarity level 6' to 'precarity level 1' where 6 is unemployed currently and for 6 months or more in 1993 and level 1 is currently inactive. All groups are compared to the currently employed who have not experienced unemployment in the last five years.

Social Class Position

By social class we refer to a set of locations (rather than persons) identifiable by their relationship to dimensions of advantage and disadvantage in the labour market, and thus more widely. Class allows us to sum up a number of other forms of disadvantage in a manner that tends to be stable across time. Presence in a more disadvantaged

social class tends then to constrain mobility into a more advantaged position. The classification we have constructed on the basis of the ECHP data is an aggregated version of the CASMIN class schema (Erikson and Goldthorpe 1992). While it is possible to operationalise a more differentiated class schema, it emerges, that in case of persistent deprivation the crucial distinction is between manual workers and all others.

Household Type

Our original typology divides households up into seven types: single person, single parents, single elderly, elderly couple, couple with two or less children, couple with three or more children and finally, an other grouping. Our hypothesis is that characteristics that do not allow one to fully participate in the labour market are more likely to lead to persistent deprivation. It emerged from our preliminary analysis that the most important distinctions were between lone parents and couples without children and all others. In addition we found that in some, but by no means all countries, households where the reference person was aged less than twenty-five were exposed to a higher level of risk

Marital Status

Persistent deprivation is also likely to be influenced by life events relating to marital status. The crucial distinction for our present purpose is between being divorced or separated and all others.

In Table 5 we set out the results of multivariate analysis. Our dependent variable is a dichotomous one distinguishing between those who are in households that are above the deprivation threshold corresponding to 70% of median income in all three years

and all other individuals. The coefficients reported are the multiplicative coefficients or odds ratios from the individual country logistic regressions. Since the vast majority of the coefficients in the table are highly significant we have restricted ourselves to reporting where outcomes fail to be significant at the one per cent level.

From Table 5 it is clear, with the exception of Denmark, that the net effect of persistent poverty when controlling for all other variables in the equation is highly significant. The value of the odds ratio ranges from 2.09 in UK to 5.7 in Spain.

Table 5: Logistic Regression of the Odds of Being Persistently Poor Multiplicative Coefficients

	Germany	*Denmark*	*Netherlands*	*Belgium*	*France*	*UK*	*Ireland*	*Italy*	*Greece*	*Spain*	*Portugal*
Persistent Income Poverty	2.72	1.09*	4.71	3.83	4.32	2.09	2.79	4.59	4.68	5.74	5.51
Precarity Level 6	6.03	5.24		4.17	5.50	14.34	6.11	2.81	4.01	6.06	2.21
Precarity Level 5	4.12	3.80	5.03	4.82	3.55	6.20	1.85	4.38	1.74	2.91	2.06
Precarity Level 4	2.98	1.78		4.70	3.28	3.31	3.03	3.61	1.61	3.11	4.93
Precarity Level 3	2.45	1.97	2.57	3.38	1.82	3.12	3.00	2.45	1.39	2.04	3.02
Precarity Level 2	1.79	4.08	2.80	1.75	1.57	4.90	2.10	1.34	1.63	2.76	1.44
Education=ISCED 3-4	1.57	1.34*	1.13*	1.48	1.57	1.54	3.09	1.95	2.02	0.97*	0.52*
Education=ISCED 0-2	1.74	1.30	2.46	2.32	2.62	2.18	4.56	3.47	5.39	4.00	10.12
Manual	2.51	1.58	2.00	1.30	1.85	2.62	2.48	1.71	1.86	1.75	2.07
Separated/Divorced	2.11	1.05*	3.57	2.34	2.22	2.34	1.45*	1.33*	1.69*	1.43*	1.23*
Lone Parent	2.13	7.94	3.21	2.58	1.40	3.00	1.47	1.49	2.28	1.66	1.42
Couple 3+ Children	2.70	1.39	1.47	2.42	1.24*	2.60	2.10	1.97	0.74*	1.65	1.43
Reference person Aged 17-24	2.70	2.89	2.13	1.00*	1.29*	2.33	2.18	1.03*	1.51	1.03*	1.85

* p> .01

However, it is also clear that a range of other factors have a substantial effect on the risk of persistent poverty. Looking first at a labour market situation we find that for all countries the lowest level of risk is associated with the reference category of being currently in employment and never having experienced unemployment. With the exception of Belgium and Portugal, the highest odds of being persistently deprived arises for those who are currently unemployed and were unemployed for more than six months in 1993. The value of the odds ratio ranges from a low of 2.2 in Portugal to a remarkable high of 14.3 in the United Kingdom. For seven of the eleven countries it lies in the range 3.5 to 4.0 to 6.1. The unemployed who were unemployed for less than six months in 1993 are also substantially more likely than the reference group to experience persistent poverty. In most cases the disparity is somewhat less than for the previous group. However, even leaving aside the Dutch for whom the absence of calendar information allows no distinction between longer and shorter-term unemployment. The odds ratio varies from 1.74 in Greece to 6.20 in UK and for six of the countries it is found in the range between 3.0 to 3.6. Similarly, those currently in employment but who have experienced unemployment in the previous year, or indeed in the past five years, display substantially higher risk levels. This is also true for those who are currently inactive, although the pattern is more variable across countries. The degree of differentiation in outcomes between the categories of precarity is somewhat less than has been observed in other analyses, but it must be kept in mind that in addition to a range of socio-demographic controls we are also controlling for persistent poverty.

The situation in relation to education is relatively straightforward. In every country those with less than the second stage of second level education have the highest level

of risk. The odds ratios for this category in comparison with the reference category of those with third-level education vary from 1.30 in Denmark to 10.1 in Portugal. The impact of low-level education is substantially stronger in Ireland and the southern European countries than in the remaining countries. Thus for the former the lowest value is 3.5 in Italy while for the latter the highest value is 2.6 in France.

For social class we again observe a consistent pattern. Manual workers in every country have a higher net risk of being persistently deprived. The coefficient varies within the relatively narrow range running from 1.30 in Belgium to 2.62 in the UK.

When we switch our attention to the need variables we find somewhat more cross-country variation. Couples with three or more children generally have higher odds ratios, although the effect is not statistically significant in France and Greece. In the case of separation/divorce there is once again something of a contrast between Ireland and the Southern European countries and the remaining Northern European countries. In the former the impact of separation/divorce fails to achieve statistical significance while for the latter, with the exception of Denmark, the odds ratio exceeds two in each case and achieves significance. The impact of being a young reference person is somewhat more varied. It is insignificant in France and Greece but significant in all other countries with the odds ratios ranging from 1.51 in Greece to 2.9 in Denmark. The need variable which has a uniformly negative effect across countries is being a lone parent. The contrast between Ireland and the Southern European countries and the remainder is not quite as clear as before, but is still apparent. For the former only in the case of Greece does the value of the odds ratio rise above two. For the remaining countries only in the case of France does it fall below two.

Our multivariate analysis has shown that persistent income poverty has a substantial effect on exposure to persistent deprivation even when we control for a range of socio-demographic influences. However, it is equally true that both resource and need characteristics are predictive of persistent deprivation even when we control for persistent income poverty. This is particularly true of the resource variables. Poor education, working class status and labour market disadvantage all serve as important paths to persistent disadvantage even where persistent income poverty is not a significant mediating factor. The same is true of need type variables although the effects are more modest and are more clearly apparent in Northern European countries. Thus the modest overlap between both types of disadvantage should not be confused with a weak structuring of persistent deprivation.

6. Persistent Income Poverty, Persistent Deprivation and Economic Strain

In order to improve our understanding of the respective roles of persistent income poverty and life-style deprivation, in this section we examine subjective responses to economic circumstances. Our indicator of economic strain relates to whether the respondent's household was reported to be experiencing difficulty in making ends meet (as reported by the household reference person). Given our interest in the consequences of extremes of income poverty and deprivation we distinguish between those experiencing extreme difficulty and all others. Economic strain is measured on the basis of the information provided in the third wave of the ECHP relating to the situation in 1996. In Table 6 we show the results deriving from a series of logistic regressions aimed at testing the gross and net impact of both types of persistence on the odds of a household reporting being under severe economic strain. The procedure

we have followed is that for each country we have in turn allowed persistent income poverty and persistent deprivation to be entered first into the equation thus providing us with both gross and net estimates for both variables. For both types of estimates and for all countries the coefficients are significant at the one in a thousand probability level. Turning first to the gross estimates, we find that those who are persistently income poor between 1993 and 1995 have an odds of experiencing extreme economic strain that ranges from 2.1 times that of other individuals in Denmark to 6.1 times in the Netherlands. For those persistently deprived the range of odds ratios is somewhat more variable and runs from 5.4 in Portugal to 33.6 in the Netherlands. The remarkably high Dutch values arise not so much because of comparatively high values of economic strain among the persistently deprived but from unusually low levels among those who escape this fate. However, eight of the eleven countries are found in the range 8.6 to 10.8. In every case the deprivation coefficient is substantially higher than that relating to income. Turning our attention to the net effects, we find that when we control for deprivation the impact of income poverty persistence is in every case substantially reduced. The range of net coefficients runs from 1.6 in the UK to 3.74 in Greece. Similarly, controlling for income reduces the size of the deprivation coefficients, which now run from a low of 4.6 in Portugal to a high of 28.2 in the Netherlands. However, eight of the eleven countries have odds ratios lying in the range 6.6 to 10.0. Once again the deprivation coefficients are substantially higher than the income coefficients in every country.

*Table 6:Odds on Experiencing Extreme Economic Strain by Persistent Income Poverty and Persistent Deprivation**

	Persistently income poor at 70% of median income 1993-1995		*Persistently deprived at corresponding threshold 1994-96*	
	Gross	*Net*	*Gross*	*Net*
Germany	2.84	1.65	9.60	8.65
Denmark	2.09	1.76	10.34	10.04
Netherlands	6.11	2.00	33.58	28.24
Belgium	4.38	2.15	18.61	15.52
France	4.41	2.39	10.80	8.54
U. K.	3.34	1.58	10.87	9.54
Ireland	5.47	3.30	10.61	7.81
Italy	4.86	3.04	9.62	7.16
Spain	3.83	2.35	8.64	6.63
Greece	5.30	3.74	8.64	9.38
Portugal	2.70	1.76	5.43	4.60

* All coefficients significant at .the .001 level

7. Conclusions

While absolute and relative approaches to poverty are usually seen to be polar opposites, one thing they share in common is that they attempt to measure their underlying conceptions of poverty indirectly through measurement income. In the case of the absolute approach this has left it open to the accusation that the underlying rationale is inherently circular. The argument underlying the relative approach does not suffer from this flaw but ultimately it must provide empirical support for the assumption that those falling more than a certain distance below a particular level of income in the society are unlikely to be able to participate fully in the life of the community. It is the striking absence of such empirical support and, on the contrary the accumulation evidence of a rather poor fit between income and deprivation measures, particularly as poverty is defined more stringently, that represents a fundamental challenge to the relative income line approach.

As awareness has increased that some of the difficulties associated with the income line approach arise from the fact that current income provides an extremely imperfect

measure of permanent income or command over resources, increased attention has been directed to the use of persistent income poverty measures. Our analysis shows that such measures do bear a significantly closer relationship to deprivation measures and comes much closer to displaying the properties we require of poverty measures. However, to date most of the concern with issues of dynamics has focused on income poverty and very little on direct measures of deprivation. This may to some extent be due to an implicit assumption that deprivation is more stable than low income. However, our analysis shows that this is not the case and over a three year period movement into and out of the higher ranges of the deprivation continuum was just as frequent as movement above and below the 70% median income poverty line. Furthermore, while there is a clear and systematic relationship between persistent poverty and deprivation the degree of overlap is far from perfect .

It is important, however, to stress that evidence for the existence of a substantial degree of poverty dynamics does not imply that either current or persistent deprivation is relatively unstructured. As we have seen, in addition to the impact of persistent income poverty, a variety of resource related variables such as education, labour market experience and social class and need related variables such as marital status and household structure, allow a significant degree of predictability in relation to the risk of exposure to deprivation.

Our findings suggest a number of policy implications. First, it is it clear that in any attempt to understand poverty, it would be unwise to rely solely on income based measures. A vivid illustration of this is provided by the limited extent to which persistent income poverty allows us to explain the extent to which households

experience severe economic strain and the degree to which persistent deprivation exerts an independent influence. Neither, however, do we suggest dispensing with income measures. Rather we would argue that the complexity of the results we have presented bring out the fact that in attempting to understand the nature and extent of poverty it is unwise to rely on any single measure. It is possible to combine information on income and deprivation in constructing poverty indices and Nolan *et al* (2000) provide an example of this in relation to Ireland. However, it is important that the political need for a headline target should not be fulfilled at the expense of obscuring the complex reality of poverty processes.

There are also important analytic and policy issues which arise from the fact that considerable short-term mobility coexists with a high degree of social structuring of deprivation in terms of relatively unchanging characteristics of individuals such as social class, education and labour market experience. Analysis of determinants of short term movements into and out of income poverty and exposure to extreme deprivation would require a rather different approach to that adopted in this paper and, ideally, a longer run of panel data. It is clearly important to distinguish between short and longer-term poverty and to develop an understanding of the factors that prompt such movement. It is perhaps even more important, however, that concern with such issue and the analytic challenges they present, should not obscure the fact that irrespective of the fact of which individuals are poor and deprived at any particular point in time, the social categories exposed to high risk levels are precisely those a conventional stratification perspective would lead one to expect. In policy terms increasing concern with individual responsibility and agency should not be allowed to

distract us from the extent to which life-chances continue to be socially structured by a set of influences that are shaped by larger socio-economic and political forces.

Appendix

Respondents were asked about some items in the format employed by Mack & Lansley (1985): for each household it was established if the item was possessed/availed of, and if not a follow-up question asked if this was due to inability to afford the item. The following six items took this form:

- A car or van.
- A colour TV.
- A video recorder.
- A micro wave.
- A dishwasher.
- A telephone.

In these cases we consider a household to be deprived only if absence is stated to be due to lack of resources.

For some items the absence and affordability elements were incorporated in one question, as follows: “There are some things many people cannot afford even if they would like them. Can I just check whether your household can afford these if you want them”. The following six items were administered in this fashion:

- Keeping your home adequately warm.
- Paying for a week’s annual holiday away from home.
- Replacing any worn-out furniture.
- Buying new, rather than second hand clothes.
- Eating meat chicken or fish every second day, if you wanted to.
- Having friends or family for a drink or meal at least once a month.

The final item relates to arrears; we consider a household as experiencing deprivation in terms of this item if it was unable to pay scheduled mortgage payments, utility bills or hire purchase instalments during the past twelve months. An index based on a simple addition of these thirteen items give a reliability coefficient of 0.80.

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Notes

[1] The weighting variables employed for the longitudinal analysis is, as recommended by Eurostat, the 1996 base weight.

[2] For the purposes of the present analysis we have excluded Lusxembourg because it must frequently be treated as an exceptional case.

[3] For discussions of the quality of the ECHP data set see Eurostat (1999b & c) and Watson and Healy (1999).

[4] Thus we avoid items where the issue of choice cannot be satisfactorily resolved and those, such as "having a second home", where possession of the item is a relatively rare phenomenon in all of the countries covered.

[5] For an analysis that looks at such cross-national differences see (Layte *et al* , forthcoming).